Nokia Customer Care
NHL-12 Series Transceivers

1 - General Information

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1. General Information about Nokia NHL-12

NHL-12 is an imaging category (IP2.5) phone featuring a high-quality colour LCD, improved camera and EDGE. NHL-12 operates on triple-band GSM (850/1800/1900) and E-GPRS networks, and supports enhanced interfaces for connectivity with Bluetooth and USB (Universal Serial Bus).

Figure 1:View of NHL-12

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2. Transceiver Features

Display and keypad

- TFT colour display (176x208 pixels) with 65,536 colours
- Ribless numeric keymat, ITU layout
- Advanced 5-way joystick
- 2 Selection keys, Menu key, Edit key, Clear key

Hardware

- Internal antenna
- Americas tri-band GSM 850/1800/1900
- Speech codecs: AMR (EFR), FR
- CSD: 1+1 at 9.6 or 14.4 kbps
- EGPRS: Multislot Class 2, 1+1, 2+1, class B. Max DL=118.4kbps, UL=59.2 kbps
- GPRS: Multislot Class 6, 1+1, 2+2, 2+1, 3+1, class B. Max DL=40.3kbps UL=26.8kbps
- Integrated VGA (640 x 480 pixels) camera with a high quality lens
- 12 MBytes internal user memory
- Memory card slot for additional user memory (3V MMC)
- Bluetooth and Infrared wireless connectivity.
- Pop-Port^{TM} including USB connectivity
- Internal vibrator
- Integrated handsfree speaker
- Plug-in SIM (1.8 and 3.0 V)
- Real time clock (NITZ)

Software

- Symbian OS 7.0s platform
- Nokia Series 60 UI: C++ and Java SDKs
- Data over TCP/IP
- OMA provisioning

UI features

Imaging

Capture:

- Camera with 2 modes (Standard/Night) and 2x digital zoom

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- Still capture with self-timer
- Video Recorder supporting QCIF(176x144)) and subQCIF(128x96) sizes

Share:

- View on TV with Nokia Image Viewer
- Sending via IR, Bluetooth, MMS, e-mail

Organise:

- Transferring to PC via IR/Bluetooth
- Creating folders in Media Gallery
- Copy and move multimedia

Streaming:

- Real 3GPP streaming over EDGE

Messaging:

- Multimedia Messaging with Presentations
- Concatenated SMS (MO/MT)
- Picture Messaging
- E-mail (SMTP, IMAP4, POP3)
- T9 predictive text input
- Instant Messaging (Wireless Village)

Synchronisation:

- Local (using PC suite):
  - Microsoft Outlook (97, 98, 2000, 2002)
  - Outlook Express, Lotus Organizer (5.0, 6.0)
  - Lotus Notes (5.0/5.02/6.0)
- Remote (with SyncML server):
  - Data: Calendar, Contacts, Tasks, Notes

PIM

- Contacts with thumbnail images
- To-do list
- Calendar
- Calculator
- Notes
- Clock
- Converter

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- Voice Recorder

Java

- MIDP2.0 with Mobile Media API (JSR 135)
- Wireless Messaging API (JSR 120)
- Nokia UI API

Personalization

- SP-MIDI, True Tones
- Themes
- Voice commands

Browser

- WAP 2.0 xHTML browser with mobile Internet
- Persistent Cache, Operator Menu

M-Commerce

- Mobile Wallet
- MP3/AAC music player

Sales package

- NHL-12 transceiver
- BL-5C battery (30% pre-charged)
- ACP-12 travel charger
- HS-5 standard headset
- 32mb MMC memory card
- Nokia literature folder:
    - User guide
    - Quick start guide
    - Application brochure
    - CD-rom
- SIM card in holder
- Carrier literature

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NHL-12 product and module list

Name	Type code	Material code	Module code
US Nokia Grey	NHL-12	0511014	
US Nokia Blue	NHL-12	0513061	
AWS Gray	NHL-12	0513902	
Cincular Gray	NHL-12	0513904	
Rogers Gray	NHL-12	0513922	
LTA Gray	NHL-12	0511015	
LTA Blue	NHL-12	0513934	
Telcel Mexico Gray	NHL-12	0513924	
System module	HL-9		0201947
Assembly parts			0262864
Basic SW			On flash memory

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3. Technical Specifications

General specifications of transceiver NHL-12

Unit	Dimensions (mm) (L x W x T)	Weight (g)	Volume (cm^3)
Transceiver with BL-5C 900mAh Li-Ion battery pack	108.6 x 58.2 x 23	124 (with BL-5C battery)	117

Main RF characteristics

Parameter	Unit
Cellular system	GSM 850/1800/1900
RX frequency band	GSM850: 869 - 894 MHz
	GSM1800: 1805 - 1880 MHz
	PCS1900: 1930 - 1990 MHz
TX frequency band	GSM850: 824 - 849 MHz
	GSM1800: 1710 - 1785 MHz
	PCS1900: 1850 - 1910 MHz
Duplex spacing	GSM850: 45 MHz
	GSM1800: 95 MHz
	GSM1900: 80 MHz
Output power	GSM850: GMSK 5...33 dBm
	GSM850: 8-PSK 5...27 dBm
	GSM1800: GMSK 0...30 dBm
	GSM1800: 8-PSK 0...26 dBm
	GSM1900: GMSK 0...30 dBm
	GSM1900: 8-PSK 0...26 dBm
Number of RF channels	GSM850: 124
	GSM1800: 374
	GSM1900: 300
Channel spacing	200 kHz

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Parameter	Unit
Number of power levels GMSK	GSM850: 15
	GSM1800: 16
	GSM1900: 16
Number of power levels 8-PSK	GSM850: 12
	GSM1800: 14
	GSM1900: 14

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4. Mobile Enhancements

Batteries	Type	Product code
Battery 850mAH Li-Ion	BL-5C	0670334
Chargers	**Type**	**Product code**
Travel charger (US) 90-264 Vac	ACP-12UB	0675203
Travel charger (US) 90-264 Vac	ACP-12G	0675295
Data	**Type**	**Product code**
Connectivity cable	DKU-2	0730238
Memory card 128MB	DTS-128	
Imaging	**Type**	**Product code**
TV image viewer	SU-2	0700084
Image viewer	SU-5	
Image frame	SU-4	
Image frame	SU-7U	
Messaging	**Type**	**Product code**
Digital pen	SU-1B	0710000
Car Accessories	**Type**	**Product code**
Wireless carkit	CK-1W	0080785
Mobile charger	LCH-12	0675328
Mobile holder	MBC-19	
Audio Accessories	**Type**	**Product code**
Boom headset	HDB-4	
Standard headset	HS-5	
Stereo headset	HDS-3	0694093
Retractable headset	HS-10	
FM radio headset	HS-2R	

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Personal Accessories	Type	Product code
Inductive loopset	LPS-4	0630244
Wireless headset	HDW-2	
Fashion stereo headset	HS-3	
Wireless clip-on headset	HS-3W	0080769
Wireless boom headset	HS-4W	
TTY adapter	HDA-10	
Other Accessories	**Type**	**Product code**
Carrying case		
Socket BT connectivity card		

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